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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,456

04/04/2006

Chantal Cordier

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EXAMINER

KOZIOL, STEPHEN R

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

09/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/574,456	<b>Applicant(s)</b> CORDIER ET AL.	
	<b>Examiner</b> STEPHEN R. KOZIOL	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 6-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04/04/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/19/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

Detailed Action

***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 06/19/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the IDS is being considered by the examiner.

***Priority***

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

***Abstract***

3. The abstract is also objected to for minor informalities. One goal of the abstract is to provide a reader with a concise summary of the key elements of the invention such that the reader may quickly determine whether or not the rest of the patent is worth considering; i.e. the abstract should be a stand-alone encapsulation of the invention. Accordingly, the abstract should not refer back to other portions of the specification by incorporating reference numbers to various drawings. Please provide a corrected abstract wherein all such numerical references to the drawings are removed.

***Claim Objections***

4. Claims 7 and 8 objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claims. See MPEP § 608.01(n) and 35 U.S.C. § 112 fifth paragraph. Accordingly, claims 7 and 8 have not been further treated on the merits.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in **Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966)**, that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows: (*See MPEP Ch. 2141*)

- a. Determining the scope and contents of the prior art;
- b. Ascertaining the differences between the prior art and the claims in issue;
- c. Resolving the level of ordinary skill in the pertinent art; and
- d. Evaluating evidence of secondary considerations for indicating obviousness or nonobviousness.

6. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shapiro et al., WO 2001/88835 A1 ("Shapiro") (cited by Applicants) in view of Kato et al. EP 0348182A2 ("Kato") (also cited by Applicants).

Regarding claim 1 Shapiro teaches an optical device for forming an image of fingerprints (*Shapiro's apparatus is explained on pages 5-7 and with respect to Figure 1*), comprising:

- an optical plate (1) with (*Shapiro, Figure 1 item 1*):
- a first main face (2) constituting a face for affixing a finger (3) of which an image of the fingerprints is to be obtained (*Shapiro, Figure 1 item 20*),
- a first lateral face (4) shaped as a convergent mirror (*Shapiro, Figure 1 item 21*), and
- a second lateral face (5), opposite the first lateral face (4) and forming the exit face of the optical plate (*Shapiro, Figure 1 item 22*),
- at least one light source (7) for illuminating said first main face (2) through the optical plate (1) (*Shapiro, Figure 2 item 4*):

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- a focusing objective (9), situated opposite said exit face (5) of the optical plate and having its object focal point situated substantially in the focal plane of the convergent mirror (Shapiro, *Figure 1 item 3*), and
- a diaphragm (10) provided with an aperture (11), said diaphragm being interposed between said exit face (5) and said focusing objective (9) and situated substantially in the vicinity to the focusing objective (Shapiro, *Figure 1 item 30*),

Shapiro is presently interpreted as being silent on the limitation of the first main face characterized in that said first main face (2) of the optical plate (1) forms, with the exit face (5) of this optical plate, an angle of greater than 90.degree., whereby the angle of incidence of the light rays on said first main face, inside the optical plate, is increased and the stray radiation arriving at the exit face is decreased, at the same time as the thickness of the optical plate can be reduced.

Kato teaches a similar optical imaging device for recording a fingerprint image when a finger is placed on a transparent surface and subjected to incident beams of light (*see Kato Abstract, Figure 1 and column 4 line 39 through column 5 line 5*). Kato further teaches using an obtuse angle as the angle between the transparent surface on which a finger is placed (Kato *Figure 1 item 7-2*) and the exit face of fingerprint forming apparatus nearest the lens/aperture assembly (Kato *Figure 1 item 15, also in column 4 line 39 through column 5 line 5*). Thus, Kato teaches the limitation of the first main face characterized in that said first main face (2) of the optical plate (1) forms, with the exit face (5) of this optical plate, an angle of greater than 90.degree., whereby the angle of incidence of the light rays on said first main face, inside the

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optical plate, is increased and the stray radiation arriving at the exit face is decreased, at the same time as the thickness of the optical plate can be reduced.

It would have been obvious to one having ordinary skill in the art at the time of the application to use Kato's teachings to modify Shapiro's apparatus by increasing the angle between Shapiro's top plate (Figure 1 item 20) and light exiting plate (Figure 1 item 22) such that the resulting angle would be greater than  $90^\circ$ , as Kato teaches in Figure 1. Using an angle greater than  $90^\circ$  achieves the known and expected benefits of reducing the amount of stray radiation that would otherwise appear incident on the light exiting plate and thus propagate through the lens/aperture assembly if a  $90^\circ$  angle were chosen.

Regarding claim 2, both Shapiro and Kato are presently interpreted as being silent on the optical device as claimed in claim 1, characterized in that the plane (P) defined by said first main face (2) intersects the diaphragm (10) under the aperture (11) of the latter, whereby a major part of the stray light transmitted from the exit face is intercepted by the diaphragm under the aperture of the latter. However, official notice is taken to note that the both the concept and benefits of the plane (P) defined by said first main face (2) intersects the diaphragm (10) under the aperture (11) of the latter, whereby a major part of the stray light transmitted from the exit face is intercepted by the diaphragm under the aperture of the latter is well known and expected in the art and would have been obvious to incorporate into Shapiro's and Kato's fingerprint-forming apparatus for the benefit of reducing the amount of stray radiation that would otherwise appear incident on the light exiting plate.

Regarding claim 3, both Shapiro and Kato are presently interpreted as being silent on the optical device as claimed in claim 2, characterized in that the inclination of said first main face

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(2) is just sufficient for said plane (P) to intersect the diaphragm (10) in the immediate vicinity of its aperture (11). However, official notice is taken to note that the both the concept and benefits of the inclination of said first main face (2) is just sufficient for said plane (P) to intersect the diaphragm (10) in the immediate vicinity of its aperture (11) is well known and expected in the art and would have been obvious to incorporate into Shapiro's and Kato's fingerprint-forming apparatus for the benefit of reducing the amount of stray radiation that would otherwise appear incident on the light exiting plate.

Regarding claim 4, both Shapiro and Kato are presently interpreted as being silent on the optical device as claimed in claim 3, characterized in that the angle of inclination of said first main face (2) with respect to a plane perpendicular to the exit face is between  $2^{\circ}$  and  $25^{\circ}$ . However, official notice is taken to note that the both the concept and benefits of the angle of inclination of said first main face (2) with respect to a plane perpendicular to the exit face is between  $2^{\circ}$  and  $25^{\circ}$  is well known and expected in the art and would have been obvious to incorporate into Shapiro's and Kato's fingerprint-forming apparatus for the benefit of reducing the amount of stray radiation that would otherwise appear incident on the light exiting plate.

Regarding claim 5, both Shapiro and Kato are presently interpreted as being silent on the optical device as claimed in claim 4, characterized in that said angle of inclination of the first main face (2) is around  $10^{\circ}$ . However, official notice is taken to note that the both the concept and benefits of the angle of inclination of the first main face (2) is around  $10^{\circ}$  is well known and expected in the art and would have been obvious to incorporate into Shapiro's and Kato's fingerprint-forming apparatus for the benefit of reducing the amount of stray radiation that would otherwise appear incident on the light exiting plate.

***Claims Objections***

7. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Contact***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Koziol whose telephone number is (571) 270-1844. The examiner can normally be reached on Monday - alt. Friday 9:00 - 5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir Ahmed can be reached at (571) 272-7413 . Customer Service can be reached at (571) 272-2600. The fax number for the organization where this application or proceeding is assigned is (571) 273-7332.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

09/02/2008  
/srk/

/Samir A. Ahmed/

Supervisory Patent Examiner, Art Unit 2624